

Exercise problems: 3.2 Conditional Probability

- 3.14 - PB & J

- 97.5%

- 3.15- Global warming

- (a) No. There are some liberal Democrats who did NOT believe the earth is warming

- (b) 62%

- (c) 90%

- (d) 33.3%

- (e) No. Most democrats believe in global warming while only a third of republicans do.

- (f) 17.7%

- 3.16 - Health coverage

- (a) No. 21% are excellent health with excellent coverage

- (b) 23%

- (c) 24%

- (d) 18%

- (e) No, though it is close

- 3.17 - Burgers

- (a) No. There are women who like five guys

- (b) 65%

- (c) 72%

- (d) 46.8%

- (e) 51.4%

- 3.18 - Assortative mating

- (a) 70.6%%

- (b) 68.4%

- (c) 35.2% - 30.6%

- (d) No. They are not independent because $P(\text{fBlue} \mid \text{mBlue}) = 78/114$ and $P(\text{fBlue}) = 108/204$

- 3.20 - Thrombosis

- 60.5%

- 3.21 - Lupus

- This statement has some truth to it because the tests for lupus raise a lot of false positives.

Although, there is always a chance that the patient actually does have lupus